

AMENDMENTS TO THE SPECIFICATION

Replace the paragraph at page 1, lines 12-24, with the following paragraph.

Pure titanium or titanium alloys (hereafter may be referred to simply as titanium alloys) have excellent corrosion resistance in various corrosive environments where chlorides are present such as in seawater, and are heavily required in chemical plants or seawater desalination plants. However, titanium has a great affinity for hydrogen, and, depending on the environment, it may therefore absorb a large amount of hydrogen. For example, if a titanium alloy is used for heat exchanger tubes in a seawater desalination plant, cathodic protection (cathode anti-corrosion) is given to prevent corrosion of steel materials in contact with the titanium alloy, but if this is done, the electrical potential of the members formed by the titanium alloy falls below the hydrogen generation potential, and the generated hydrogen is absorbed by the titanium alloy materials.

Replace the paragraph at page 4, line 20 to page 5, line 1 with the following paragraph.

The titanium alloy material described herein is a titanium alloy material which can be used as a structural material in hydrogen absorption environments, and is formed by a Ti-Al alloy containing Al: 0.50-3.0% (hereafter, all chemical components are expressed in terms of mass%), the remainder being ~~residual~~ Ti and unavoidable impurities. The amounts of Fe, Mo, Ni, Nb and Mn contained as impurities in this Ti-Al alloy are preferably suppressed to Fe: 0.15% or less, Mo: less than 0.10%, Ni: less than 0.20%, Nb: less than 1.0% and Mn: less than 1.0%.

Replace the paragraph at page 6, lines 16-24, with the following paragraph.

If on the other hand the Al content is too large, cracks tend to occur during cold working, and cold working properties remarkably decline. If cold rolling is performed under a reduction of 75%, and if the Al content is within the range of 2.5-3.0%, cracks are very minute even if they do occur and consequently they can be easily removed. If the Al content exceeds 3.0%, the cracks become very large, their removal is difficult and productivity remarkably declines. Therefore, the Al content should be maintained at 3.0% or less, but should preferably be suppressed to 2.5% or less.

Delete the paragraph at page 14, lines 12-14.

Delete the paragraph at page 14, lines 15-19.

Add the following paragraph at page 14, between lines 19 and 20.

Table 1 shows that the sample in the example of the present invention has excellent cold rolling properties and hydrogen absorption resistance compared to sample No. 1 comprising JIS class 1 pure Ti used as the starting material. In particular, for samples Nos. 9-11 (Examples) for which the Al content is 1.0% or more, and impurity amount has been reduced to less than a predetermined value, the improvement of hydrogen resistance properties is remarkable.

Delete the original abstract.

Add the abstract on the following page.